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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,166	05/24/2001	Raymond T. Hsu	010115	2831

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QUALCOMM INCORPORATED  
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SAN DIEGO, CA 92121

EXAMINER
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RYMAN, DANIEL J

ART UNIT	PAPER NUMBER
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2616

NOTIFICATION DATE	DELIVERY MODE
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09/05/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

09/865,166

Applicant(s)

HSU ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 128 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 1,8,9,19,25-27,33-37,43-45,51,52,66-68,74-76,82,83,94,100,101,112,118-120 and 126-131.

Continuation of Disposition of Claims: Claims rejected are 1,8,9,19,25-27,33-37,43-45,51,52,66-68,74-76,82,83,94,100,101,112,118-120,126,127 and 129-131.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 10 August 2007 regarding the 35 U.S.C. § 101 rejections of claims 45, 51, 52, 66-68, 74-76, 82 and 83 have been fully considered but they are not persuasive. As Applicant recognizes, MPEP § 2106.IV.B.1.(a) states that "a computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory." Independent claims 45, 66 and 76 fail to define structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized. Claim 45 merely claims a device with a memory storing a method. Similarly, claim 66 merely claims a node with a memory storing a method, and claim 76 merely claims a device with a memory having instructions stored thereon. Simply placing a method in a memory of a device does not "define structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized." As such, Examiner maintains that claims 45, 51, 52, 66-68, 74-76, 82 and 83 are directed to non-statutory subject matter.

2. In addition, Applicant's amendments to claims 1, 8, 9, 19, 25-27, 33-37, 43-45, 51, 52, 66-68, 74-76, 82, 83, 94, 100, 101, 112, 118-120, 126, 127, and 129-131 have raised new issues with respect to 35 U.S.C. § 112. These rejections follow.

### ***Claim Objections***

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3. Claim 128 is objected to because it recites “Point-to-Point Protocol links sharing an identical Internet Protocol Address”. The Specification discloses that the endpoints of the PPP link have IP addresses, not the link itself. Specification: ¶ [1085]. Therefore Examiner suggests changing “Point-to-Point Protocol links having identical Internet Protocol Address” to “Point-to-Point Protocol links sharing at least one endpoint having an Internet Protocol Address”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 45, 51, 52, 66-68, 74-76, 82 and 83 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

6. Claim 45 recites: “A wireless device comprising a memory, wherein the memory embodies a method”. Claim 66 recites: “A wireless network node comprising a memory, wherein the memory embodies a method”. Claim 76 recites: “A wireless device comprising: . . . a memory . . . having code or instructions for directing the control processor [to perform certain steps]”. Current USPTO practice requires that software be claimed using the following form: “Computer-readable medium encoded with a data structure for . . .” Any other language fails to define structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized. As such, any other language for claiming a computer program is non-statutory.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 8, 9, 19, 25-27, 33-37, 43-45, 51, 52, 66-68, 74-76, 82, 83, 94, 100, 101, 112, 118-120, 126, 127, and 129-131 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claims 1, 45, 66, 94, and 129 recite: "establishing a first Point-to-Point Protocol link having endpoints with an Internet Protocol Address" (or a variation thereof). Claims 1, 45, 66, 94, and 129 further recite: "establishing a second Point-to-Point Protocol link having the same Internet Protocol Address as the first Point-to-Point Protocol link" (or a variation thereof). It is unclear how an IP address can identify both the end points of the first PPP link and the link itself. It is also unclear whether the second PPP link, itself, is identified by an IP address or whether the endpoints of the second PPP link are identified by the IP address. Further, under the IP protocol, only a single node on a given network should be identified with a given IP address to ensure that a packet can be properly routed to the given node. Therefore, it is unclear how all of the endpoints of the first IP link are identified with a single IP address, as suggested by the phrase "establishing a first Point-to-Point Protocol link having endpoints with an Internet Protocol Address." Examiner requests that Applicant clarify whether all of the endpoints of a given PPP link are identified with an IP address or whether only one of the endpoints is identified with a given IP address. Also Examiner requests that Applicant clarify the addressing of the second PPP link.

10. Claims 19, 27, 35, 76, 112, and 120 recite: "each Point-to-Point Protocol session belonging to the set having endpoints with the same Internet Protocol address." Under the IP

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protocol, only a single node on a given network should be identified with a given IP address to ensure that a packet can be properly routed to the given node. Therefore, it is unclear how the endpoints of each of the PPP links in the set are identified with a single IP address, as is suggested by the aforementioned recitation. Examiner requests that Applicant clarify whether all of the endpoints of a given PPP link are identified with an IP address or whether only one of the endpoints is identified with a given IP address. Examiner also requests that Applicant clarify the relationship of the endpoints of the various PPP links in the set, e.g. does each link share only one endpoint, all endpoints, no endpoints?

***Allowable Subject Matter***

11. Claims 1, 8, 9, 19, 25-27, 33-37, 43-45, 51, 52, 66-68, 74-76, 82, 83, 94, 100, 101, 112, 118-120, 126, 127, and 129-131 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The prior art does not disclose or fairly suggest differentiating the endpoints of multiple PPP links using a link characteristic including at least one of a compression type, encryption level, RLP transmission delay, and guaranteed delivery level.

12. Claim 128 is allowed. The prior art does not disclose or fairly suggest differentiating the endpoints of multiple PPP links using a link characteristic including at least one of a compression type, encryption level, RLP transmission delay, and guaranteed delivery level.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Warriar et al. (USPN 6,684,256) see col. 1, line 52-col. 2, line 51, which details

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distinguishing between multiple PPP links having the same associated IP address through unique pairs of home IP addresses and home agent IP addresses.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel J. Ryman  
Examiner  
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*Daniel Ryman*